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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/871,632	06/04/2001	Lin Lin Chen	MR1035-894	3205
4586	7590	12/03/2004	EXAMINER	
ROSENBERG, KLEIN & LEE 3458 ELLICOTT CENTER DRIVE-SUITE 101 ELLICOTT CITY, MD 21043			DAY, HERNG DER	
			ART UNIT	PAPER NUMBER
			2128	

DATE MAILED: 12/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

OK

## Office Action Summary

Application No.

09/871,632

Applicant(s)

CHEN, LIN LIN

Examiner

Herng-der Day

Art Unit

2128

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2001.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-9 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 04 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. Claims 1-9 have been examined and claims 1-9 have been rejected.

#### ***Drawings***

2. The drawings are objected to for the following reasons. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

- 2-1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference signs mentioned in the description:

(a) Steps 130, 140, 150, 210, 211, 213, 220, 230, 240, 250, 235, 245, 255, 260, and 270 as described at pages 4-8.

- 2-2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference signs not mentioned in the description:

(a) 14, 164, 166, 182, 184, and 186, in FIG. 2.

#### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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4. Claims 1-9 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

4-1. For example, claim 1 recites the limitation “selecting at least one particular group people to make an investigation subject to the set color comment questionnaire, and then collecting and arranging the investigation result thus obtained so as to set up effective statistic data” in step (c). However, as described in lines 21-23 of page 4, “for example, selecting a particular group of people from a particular place, sex, age, human race, physical type, occupation, or their combination”, the original specification has not disclosed any particular qualifications regarding the selected “particular group of people”, for example, not color blind. Therefore, the results from an investigation of one particular group people cannot be assured to meet the intended purpose consistently. In other words, without undue experimentation, it is unclear for one skilled in the art how to select one particular group people for establishing a color image space model.

4-2. For example, claim 1 recites the limitation “using an analysis mode to compute the effective statistic data thus obtained, so as to establish a specific color image space model” in step (d). However, as described in lines 6-12 of page 5, “Step 150 using multidimensional scaling, multidimensional preference, preference mapping, or their combination to analyze the statistic data thus obtained, so as to establish a color image space model. After the establishment of the aforesaid color image space model, a product designer can then design products for particular people of particular places subject to the color image space model”, the original specification has not disclosed any details regarding how to establish a specific color image space model by using an analysis mode to compute the effective statistic data thus obtained.

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Therefore, without undue experimentation, it is unclear for one skilled in the art how to establish a specific color image space model.

4-3. For example, claims 2 and 3 recite the limitation “at least one group of color experts” in each claim. However, as described in line 22 of page 5 through line 1 of page 6, “Step 211 inquiring color experts, for example, students of department of printing or industrial design of a particular area”, the original specification has not further disclosed any particular qualifications regarding “color experts”, for example, students not color blind. Therefore, the results from an inquiry research made on “at least one group of color experts” cannot be assured to meet the intended purpose consistently. In other words, without undue experimentation, it is unclear for one skilled in the art how to select at least one group of color experts for establishing a color image space model.

4-4. For example, claim 7 recites the limitation “establishing a color data bank subject to said effective statistic data and said specific color image space model” in the claim. However, the original specification has not disclosed any details regarding how to establish a color data bank subject to said effective statistic data and said specific color image space model. Therefore, without undue experimentation, it is unclear for one skilled in the art how to establish a color data bank subject to said effective statistic data and said specific color image space model.

4-5. Claims not specifically rejected above are rejected as being dependent on a rejected claim.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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6. Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6-1. Claim 1 recites the limitation “the standard color card and table of relative objectives thus obtained” in step (b) of the claim. There is insufficient antecedent basis for the “table of relative objectives” in the claim.

6-2. Claim 8 recites the limitation “the code” in step (a) of the claim. There is insufficient antecedent basis for this limitation in the claim.

6-3. Claims not specifically rejected above are rejected as being dependent on a rejected claim.

***Claim Rejections - 35 USC § 101***

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 1-7 are rejected under 35 U.S.C. 101 because the inventions as disclosed in claims are directed to non-statutory subject matter. In other words, it is not tangibly embodied because it could be practiced with pencil and paper and because it appears to be directed to abstract ideas.

8-1. Regarding claims 1-7, under current PTO practice, the claimed invention does not recite a concrete, useful, and tangible result because a result from an investigation of one particular group people or color experts cannot be assured to meet the intended purpose consistently as detailed in sections 4-1 and 4-3.

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8-2. The Examiner acknowledges that even though the claims are presently considered non-statutory they are additionally rejected below over the prior art. The Examiner assumes the Applicants will amend the claims to overcome the 101 rejections and thus make the claims statutory.

### *Claim Interpretation*

9. As discussed in sections 4-1 and 4-3 above, claim 1 recites the limitation “one particular group people” and claims 2-3 recite the limitation “one group of color experts”. Both limitations have not been disclosed in the specification with enough details to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to establish a color image space model. For the purpose of claim examination with the broadest reasonable interpretation, the Examiner will interpret that “one particular group people” and “one group of color experts” as “youngster group” and “adult group” respectively as disclosed by Meerun Terwogt et al., in “Colors and Emotions: Preferences and Combinations”.

10. As discussed in section 4-4 above, claim 7 recites the limitation “establishing a color data bank subject to said effective statistic data and said specific color image space model” in the claim. However, the original specification has not disclosed any details regarding how to establish a color data bank subject to said effective statistic data and said specific color image space model. For the purpose of claim examination with the broadest reasonable interpretation, the Examiner will interpret that “establishing a color data bank subject to said effective statistic data and said specific color image space model” as “color-coding process” disclosed by Fenton et al., U.S. Patent 6,343,264 B1 issued January 29, 2002.

***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Meerun Terwogt et al., “Colors and Emotions: Preferences and Combinations”, The Journal of General Psychology, Vol. 122, Iss. 1, January 1995.

12-1. Regarding claim 1, Meerun Terwogt et al. disclose a method of establishing a color image space model comprising the steps of:

(a) setting a standard color card containing a series of reference colors for use as a color data bank (The colors used consisted of the primary colors, page 2, paragraph 4), and then setting a table of relative adjectives (the most beautiful one, page 2, paragraph 5);

(b) setting a color comment questionnaire subject to the standard color card and table of relative objectives thus obtained (Which of these two colors do you feel is the most beautiful one, page 2, paragraph 5);

(c) selecting at least one particular group people to make an investigation subject to the set color comment questionnaire (three age groups, page 2, paragraph 3), and then collecting and arranging the investigation result thus obtained so as to set up effective statistic data (the chi-square distributed test statistic, page 2, last second paragraph); and



(d) using an analysis mode to compute the effective statistic data thus obtained, so as to establish a specific color image space model (the preferences for colors and emotions could be validly determined, page 2, last paragraph).

**12-2.** Regarding claim 2, Meerun Terwogt et al. further disclose the setting of said table of relative adjectives is obtained by means of an inquiry research made on at least one group of color experts (the adult group, page 2, paragraph 3).

**12-3.** Regarding claim 3, Meerun Terwogt et al. further disclose comprising the step of establishing a professional color image space model subject to said inquiry research on said at least one group of color experts (the chi-square distributed test statistic ... for adults, page 2, last second paragraph).

**12-4.** Regarding claim 4, Meerun Terwogt et al. further disclose comprising the step of comparing said specific color image space model and said professional color image space model (We performed a chi-square test to determine whether participants' preferences were age dependent, page 3, first paragraph).

**12-5.** Regarding claim 5, Meerun Terwogt et al. further disclose said analysis mode is selected from one of multidimensional scaling, multidimensional preference, preference mapping, and their combination (preferences for colors, page 2, last paragraph).

**12-6.** Regarding claim 6, Meerun Terwogt et al. further disclose said at least one particular group people is selected subject to one of the factors of sex, human race, age, place, physical type, occupation, and their combination (three age groups, page 2, paragraph 3).

***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meerun

Terwogt et al., "Colors and Emotions: Preferences and Combinations", The Journal of General Psychology, Vol. 122, Iss. 1, January 1995, as applied to claim 1 above, and further in view of Fenton et al., U.S. Patent 6,343,264 B1 issued January 29, 2002, and filed February 13, 1998.

14-1. Regarding claims 7-9, Meerun Terwogt et al. disclose a method of establishing a color image space model. Meerun Terwogt et al. fail to expressly disclose (1) establishing a color data bank subject to said effective statistic data and said specific color image space model and (2) a color image space model data bank inquiry procedure.

Fenton et al. disclose a color selection process includes: (a) the creation of a digital and graphic computer database in a unique color-coding process to classify a store's or other entity's entire product inventory according to internally harmonious color families, and (b) a visualization experience, using this database, computer graphics and a specially designed color room to give customers a more realistic preview of product(s) being considered (column 2, lines 26-34). The color selection process can be applied to any floor, window and wall coverings and other products that are manufactured in a plurality of different colors (column 2, lines 37-40) to constitute a unique and extremely powerful selling and purchasing advance in the industry (column 2, lines 26-40). Specifically, Fenton et al. disclose the following steps:

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(claim 7) establishing a color data bank subject to said effective statistic data and said specific color image space model (color-coding process, column 2, lines 27-30).

(claim 8) (a) selecting the code (code name, column 5, lines 11-18) for at least one particular group of families (color family has been identified, column 9, lines 28-31);

(b) inputting at least one color adjective key word (selects a specific color, column 9, lines 31-35); and

(c) obtaining the related color image space model of the selected particular group of families by means of the computing of a central processing unit (through the product information database, column 9, lines 31-35).

(claim 9) adjusting the color image space model subject to inputted instructions (make secondary decision, column 9, lines 50-55).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Meerun Terwogt et al. to incorporate the teachings of Fenton et al. to obtain the invention as specified in claims 7-9 because, as suggested by Fenton et al., using color family to classify colors and stored in a graphic computer database facilitate the user not only organizing the color space but also retrieving the color space.

### ***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. Reference to Beretta, U.S. Patent 5,311,212 issued May 10, 1994, is cited as disclosing a functional color selection system.

Reference to Nakanishi et al., "Color Planning by Fuzzy Set Theory", IEEE International Conference on Fuzzy Systems, March 1992, pages 5-12, is cited as proposing a system to plan a color arrangement.

Reference to Crozier, "The Meanings of Colour: Preferences among Hues", Pigment & Resin Technology, Vol. 28, Iss. 1, 1999, is cited as disclosing the consistency in colour preferences studied with adults and children respectively.

16. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Herng-der Day whose telephone number is (571) 272-3777. The Examiner can normally be reached on 9:00 - 17:30.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Jean Homere can be reached on (571) 272-3780. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Herng-der Day *H.D.*  
November 29, 2004

*Thai Phan*  
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